KENWOOD

CD-RECEIVER

KDC-X689

INSTRUCTION MANUAL

Kenwood Corporation

Take the time to read through this instruction manual.
Familiarity with installation and operation procedures will help you obtain the best performance from your new CD-receiver.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your Kenwood dealer for information or service on the product.
Model KDC-X689 Serial number _____

US Residence Only

Register Online

Register your Kenwood product at
www.kenwoodusa.com

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Contents

Safety precautions 4

Notes 5

Warning 6

About CDs 7

About AAC, MP3 and WMA 8

General features 9

- Power
- Hiding the Control Panel
- Selecting the Source
- Volume
- Attenuator
- System Q
- Speaker Setting
- Audio Control
- Audio Setup
- Subwoofer Output
- Display Setting
- Text Selection for Display
- Text Display Switching
- Graphic part/ Spectrum Analyzer Display Switching
- Station/Disc Naming (SNPS/DNPS)
- Faceplate Angle Adjustment
- Theft Deterrent Faceplate
- TEL Mute

Tuner features 21

- Tuning
- Tuning Mode
- Direct Access Tuning
- Station Preset Memory
- Auto Memory Entry
- Preset Tuning

CD/Audio file/External disc control features 23

- Playing CD & Audio file
- Playing External Disc
- Fast Forwarding and Reversing
- Track/File Search
- Disc Search/Folder Search
- Direct Track/File Search
- Direct Disc Search
- Track/File/Disc/Folder Repeat
- Scan Play
- Random Play
- Magazine Random Play
- Disc Random Play
- Folder Select
- Switching the Play mode
- Letter Seek
- Text/Title Scroll

HD Radio control features 28

- Tuning

Menu system 29

- Menu System
- Security Code
- Touch Sensor Tone
- Manual Clock Adjustment
- Date Adjustment
- Date Mode
- Dimmer
- OFF Wait Time Setting
- Built-in Amp Setting
- Dual Zone System Setting
- B.M.S. (Bass Management System)
- B.M.S. Frequency Offset
- AMP Control
- CRSC (Clean Reception System Circuit)
- Receive mode Setting
- SIRIUS ID (ESN) display
- Auxiliary Input Display Setting & Station/Disc Naming
- Text Scroll
- Built-in Auxiliary input Setting
- CD Read Setting
- Voice Index
- ACDrive firmware version display
- Unique ID display
- Audio Preset Memory
- Audio Preset Call
- Demonstration mode Setting

Basic Operations of remote control 36

Accessories/ Installation Procedure 39

Connecting Wires to Terminals 40

Installation 41

Removing the Unit 43

Troubleshooting Guide 44

Specifications 47

The "AAC" logo is trademark of Dolby Laboratories.

⚠WARNING

To prevent injury or fire, take the following precautions:

- To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.

⚠CAUTION

To prevent damage to the machine, take the following precautions:

- Make sure to ground the unit to a negative 12V DC power supply.
- Do not install the unit in a spot exposed to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- Do not place the faceplate or the faceplate case in areas exposed to direct sunlight, excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- To prevent deterioration, do not touch the terminals of the unit or faceplate with your fingers.
- Do not subject the faceplate to excessive shock, as it is a piece of precision equipment.
- When replacing a fuse, only use a new fuse with the prescribed rating. Using a fuse with the wrong rating may cause your unit to malfunction.
- Do not apply excessive force to the open faceplate or place objects on it. Doing so will cause damage or breakdown.
- Do not use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.

Attach the panel while you are on the vehicle

The panel lock arm appears when the panel is removed. Therefore, the panel must be attached while the electrical system of the car is operating.

Do Not Load 3-in. CDs in the CD slot

If you try to load a 3 in. CD with its adapter into the unit, the adapter might separate from the CD and damage the unit.

About CD players/disc changers connected to this unit

Kenwood disc changers/ CD players released in 1998 or later can be connected to this unit.
Refer to the catalog or consult your Kenwood dealer for connectable models of disc changers/ CD players.
Note that any Kenwood disc changers/ CD players released in 1997 or earlier and disc changers made by other makers cannot be connected to this unit. Connecting unsupported disc changers/CD players to this unit may result in damage.
Set the "O-N" Switch to the "N" position for the applicable Kenwood disc changers/ CD players.
The functions you can use and the information that can be displayed may differ depending on the models being connected.

⚠

- You can damage both your unit and the CD changer if you connect them incorrectly.

LX-bus connection

The LX AMP and the sensor unit must be connected one at a time.

Lens Fogging

When you turn on the car heater in cold weather, dew or condensation may form on the lens in the CD player of the unit. Called lens fogging, this condesnation on the lens may not allow CDs to play. In such a situation, remove the disc and wait for the condensation to evaporate. If the unit still does not operate normally after a while, consult your Kenwood dealer.

⚠

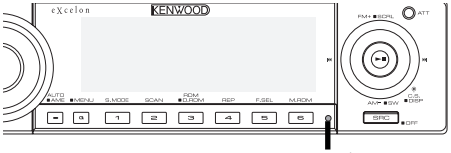
Faceplate

- Use the enclosed or dedicated faceplate. Using a faceplate other than the specified one may cause your unit to malfunction.

NOTE
This Class B digital apparatus complies with Canadian ICES-003.

Notes

- If you experience problems during installation, consult your Kenwood dealer.
- If the unit fails to operate properly, press the Reset button to restore factory settings.
- Press the reset button if the disc auto changer fails to operate correctly. Normal operation should be restored.



Reset button

- We recommend the use of <Security Code> (page 30) to prevent theft.
- The characters conforming to ISO 8859-1 character set can be displayed.
- There are places in this manual where lit indicators are described; however, the only time an indicator will light is in the following settings. When Indicator is selected as mentioned in <Text Display Switching> (page 15)
- The illustrations of the display and the panel appearing in this manual are examples used to explain more clearly how the controls are used. Therefore, what appears on the display in the illustrations may differ from what appears on the display on the actual equipment, and some of the illustrations on the display may be inapplicable.

Cleaning the Unit

If the faceplate of this unit is stained, wipe it with a dry soft cloth such as a silicon cloth.
If the faceplate is stained badly, wipe the stain off with a cloth moistened with neutral cleaner, then wipe it again with a clean soft dry cloth.

⚠

- Applying spray cleaner directly to the unit may affect its mechanical parts. Wiping the faceplate with a hard cloth or using a volatile liquid such as thinner or alcohol may scratch the surface or erases characters.

Cleaning the Faceplate Terminals

If the terminals on the unit or faceplate get dirty, wipe them with a clean soft dry cloth.

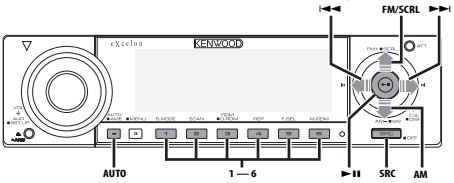
Before using this unit for the first time

This unit is initially set on the Demonstration mode. When using this unit for the first time, cancel the <Demonstration mode Setting> (page 35).

About SIRIUS Satellite radio tuner

Refer to the instruction manual of SIRIUS Satellite radio tuner KTC-SR901/SR902/SR903 (optional accessory) when connected, for the operation method.

- Refer to the sections of A models for operations.



Notes

About DAB Tuner control

Refer to [A] group on the Instruction manual of DAB Tuner KTC-9090DAB (optional accessory) for the control method of DAB Tuner function.
However, the following control methods of the function for this unit may be differed from the Instruction manual; therefore, refer to the following supplemental instruction.

<Auto Ensemble Memory Entry>

1. Select the preset band for Auto Ensemble Memory Entry.
2. Press the [AME] button for at least 2 seconds.
   Open Auto Ensemble Memory Entry.
   After storing in the memory finishes, the number of the pre-set buttons and the ensemble label are displayed.

<Searching by programme type and language> and <Languages to be displayed> in <Programme Type (PTY) Function>

At the operation to press [DISP] button, press [AUTO] button.

About "Media Manager" of PC application attached to KDC-X689

- "Media Manager" is recorded in the CD-ROM attached to this unit.
- Refer to the attached installation manual for the installation method of "Media Manager".
- Refer to the user's manual recorded in the installation CD-ROM and Help of "Media Manager" for the operation method of "Media Manager".
- The unit can play CD (hereafter called "ACDrive disc") created by "Media Manager".
- Refer to the following site for the updated information of "Media Manager".
  http://www.kenwood.mediamanager.jp
- Contact Kenwood for the function and operation of the "Media Manager".
- "Media Manager" is a product of PhatNoise.

⚠Warning

⚠CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

kenwood CORPORATION
2967-3, ISHIKAWA-MACHI,
HACHIOJI-SHI
TOKYO, JAPAN

kenwood CORP. CERTIFIES THIS EQUIPMENT CONFORMS TO DHHS REGULATIONS N0.21 CFR 1040. 10, CHAPTER 1, SUBCHAPTER J.

Location : Bottom Panel

FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE

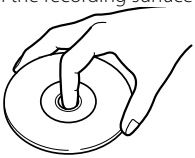
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

About CDs

Handling CDs

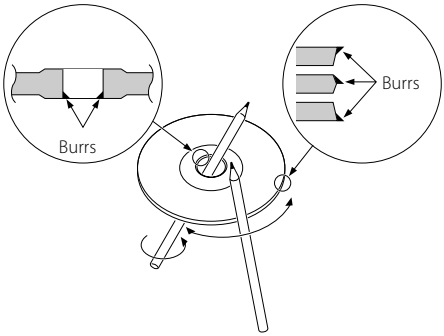
- Do not touch the recording surface of the CD.



- CD-R and CD-RW are easier to damage than a normal music CD. Use a CD-R or a CD-RW after reading the caution items on the package etc.
- Do not stick tape etc. on the CD, or use a CD with tape stuck on it.

When using a new CD

If the CD center hole or outside rim has burrs, use the CD only after removing the burrs with a ballpoint pen etc.

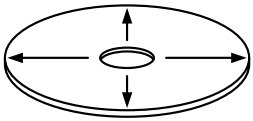


CD accessories

Do not use disc type accessories.

CD cleaning

Clean from the center of the disc and move outward.

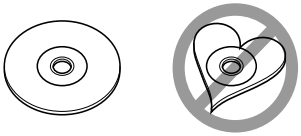


Removing CDs

When removing CDs from this unit pull them out horizontally.

CDs that cannot be used

- CDs that are not round cannot be used.



- CDs with coloring on the recording surface or CDs that are dirty cannot be used.
- This unit can only play the CDs with . This unit may not correctly play discs which do not have the mark.
- You cannot play A CD-R or CD-RW that has not been finalized. (For the finalization process refer to your CD-R/CD-RW writing software, and your CD-R/CD-RW recorder instruction manual.)

CD storage

- Do not place CDs in direct sunlight (On the seat or dashboard etc.) or where the temperature is high.
- Store CDs in their cases.

About AAC, MP3 and WMA

The playable AAC/MP3/WMA file (hereafter called Audio file) and the media format has the following limitation. The Audio file, which is not comforming to the specification, may not play normally, or the file and folder names may not display correctly.

- Attach the correct extension for the Audio file (AAC: ".M4A", MP3: ".MP3", WMA: ".WMA")
- Do not attach the extensions to files other than the Audio file. If the extension is attached, the file, which is not the Audio file, will play and outputs a loud noise, causing damage to the speaker.
- The files with copy protection cannot be played.

Playable AAC file

- ".m4a" file encoded by AAC-LC format. Refer to *http://www.kenwood.mediamanager.jp* for the details.

Playable MP3 file

- MPEG 1/2 Audio Layer 3 file
- Transfer bit rate: 8-320 kbps
- Sampling frequency : 16, 22.05, 24, 32, 44.1, 48 kHz

Playable WMA file

- The file in accordance with Windows Media Audio (Except for the file for Windows Media Player 9 or after which applies the new functions)
- Transfer bit rate: 48-192 kbps
- Sampling frequency: 32, 44.1, 48 kHz

Playable media

- CD-ROM, CD-R, CD-RW

- CD-RW discs which are quick formatted by the writing software cannot be used.
- When recording to the maximum media capacity at once, the writing software is set to "Disc at once".

Playable disc format

- ISO 9660 Level 1/2
- Joliet
- Romeo
- Long file name.

The maximum number of characters for display

File/Folder name: 128 characters

MP3 ID3 Tag/ WMA Contents property: 30 characters

AAC song information: 60 characters

- File/Folder name is the number of the characters including the extensions
- AAC ID3 Tag cannot be displayed.

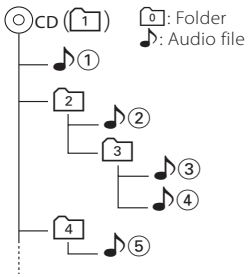
Limitation of structure for the file and the folder

- Maximum number of directory levels: 8
- Maximum number of folders: 100
- Maximum number of files per folder: 4096

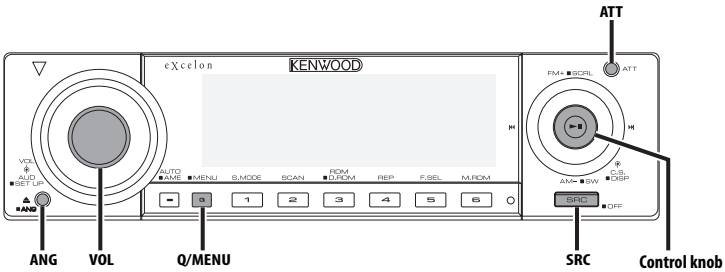
Playing order of the Audio file

The Audio file plays in the order which is written by writing software. You may be able to set the playing order by writing the play sequence numbers such as "01" to "99" at the beginning of the file name.

Example



- **Playing order**
  Playing order after ♪① play.
  ➡ ♪②, ♪③, ♪④, ♪⑤...
- **File search**
  Forward file search during ♪③ play.
  Push the Control knob towards [►►I] ➡ ♪④
- **Folder search**
  Forward folder search during ♪② play.
  Push the Control knob towards [FM] ➡ 3, 4...
- **Folder select**
  When the selection is set to directory 4, and you want to skip to the folder 2 at the same level.
  Push the Control knob towards [I◄◄] ➡ 2
  When the selection is set to directory 3, moves the level up by folder select.
  Push the Control knob towards [AM] ➡ 2



Power

Turning ON the Power

Turn the vehicle ignition ON.

The control panel appears.

Turing OFF the Power

Turn the vehicle ignition OFF or press the [SRC] button for at least 1 second.

The control panel is hidden.

⚠

- Do not apply force to the control panel during this operation. It can cause damage.

Hiding the Control Panel

Prevents tampering with the unit while your car is being serviced etc.

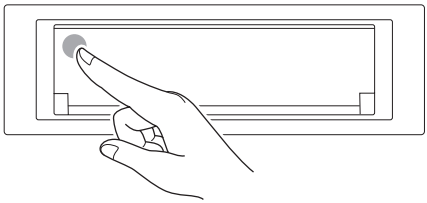
Hiding the control panel

Press the [SRC] button for at least 1 second.

When the time set in <OFF Wait Time Setting> (page 31) lapses, the panel is hidden and the power turns OFF.

Showing the control panel

Press the lower left part of the panel.



The panel opens to enable the operation.

Selecting the Source

Press the [SRC] button.

Source required	Display
SIRIUS tuner (Optional accessory)	"SIRIUS"
Tuner or HD Radio (Optional accessory)	"TUNER" or "HD RADIO"
CD	"Compact Disc"
External disc (Optional accessory)	"CD Changer"
Auxiliary input	"AUX"
Auxiliary input (Optional accessory)	"AUX EXT"
Standby (Illumination only mode)	"STANDBY"

Volume

Increasing Volume

Turn the [VOL] knob clockwise.

Decreasing Volume

Turn the [VOL] knob counterclockwise.

Attenuator

Turning the volume down quickly.

Press the [ATT] button.
Each time you press the button is pressed, the Attenuator turns ON and OFF.
When the Attenuator is ON, "ATT ON" is displayed.

System Q

Selecting the best sound setting preset for different types of music.

1 Select the source to set
Press the [SRC] button.

2 Select the Sound type
Press the [Q] button.
Each time you press the button is pressed, the sound setting alternates.

Sound setting	Display
User memory	"User"
Rock	"Rock"
Pops	"Pops"
Easy	"Easy"
Top 40	"Top 40"
Jazz	"Jazz"
Natural	"Natural"

- User memory: The values set on the <Audio Control> (page 11).
- Change each setting value with the <Speaker Setting> (page 10).
  First, select the speaker type with the Speaker setting.

Speaker Setting

Fine-tuning so that the System Q value is optimal when setting the speaker type.

1 Enter Standby
Press the [SRC] button.
Select the "STANDBY" display.

2 Enter Speaker Setting mode
Press the [VOL] knob.

3 Select the Speaker type
Turn the [VOL] knob.
Each time you turn the knob, the setting alternates between the settings shown in the table below.

Speaker type	Display
OFF	"Speaker OFF"
For 5 & 4 in. speaker	"Speaker 5/4inch"
For 6 & 6x9 in. speaker	"Speaker 6x9/6inch"
For the OEM speaker	"Speaker O.E.M."

4 Exit Speaker Setting mode
Press the [VOL] knob.

Audio Control

1 Select the source to adjust
Press the [SRC] button.

2 Enter Audio Control mode
Press the [VOL] knob.

3 Select the Basic Audio item to adjust
Press the [VOL] knob.
Each time you press the knob, the item to be adjusted alternates between the items shown in the table below.

4 Adjust the Basic Audio item
Turn the [VOL] knob.

Adjustment Item	Display	Range
Rear Volume *1	"R-Volume"	0 — 35
Subwoofer level*2,3	"SW_Level"	−15 — +15
Bass level*4	"Bass Level"	−8 — +8
Middle level*4	"Middle Level"	−8 — +8
Treble level*4	"Treble Level"	−8 — +8
Balance	"Balance"	Left 15 — Right 15
Fader*3	"Fader"	Rear 15 — Front 15
Exit Audio Control mode		

- *1 You can control this item when "2Zone" of <Audio Setup> (page 12) is set to "ON".
- *3 You can control this item when <Subwoofer Output> (page 12) is set to "SW ON".
- *3 You can control this item when "2Zone" of <Audio Setup> (page 12) is set to "OFF".
- *4 You can adjust these items in detail by the following methods.
- *4 Source tone memory: Puts the set up value in the memory per source. (Detail Audio item is included)

5 Exit Audio Control mode
Press any button.
Press a button other than the [VOL] knob and [ATT]/ [ANG] button.

Adjust the detail of Audio Control

1 Select the Audio item to adjust
By referring to the step 1 — 3 above, select the desired item to be set in detail from the items marked with *4.

2 Enter Detail adjustment mode of Audio Control
Press the [VOL] knob for at least 1 second.

3 Select the Detail Audio item to adjust
Press the [VOL] knob.
Each time you press the knob, the item to be adjusted alternates between the items shown in the table below.

4 Adjust the Detail Audio item
Turn the [VOL] knob.

Bass level

Adjustment Item	Display	Range
Bass Center Frequency	"Bass Freq"	40/50/60/70/80/100/120/150 Hz
Bass Q Factor	"Bass Q"	1.00/1.25/1.50/2.00
Bass Extend	"Bass EXT"	ON/OFF

Middle level

Adjustment Item	Display	Range
Middle Center Frequency	"Middle Freq"	0.5/1.0/1.5/2.0 kHz
Middle Q Factor	"Middle Q"	1.0/2.0

Treble level

Adjustment Item	Display	Range
Treble Center Frequency	"Treble Freq"	10.0/12.5/15.0/17.5 kHz

5 Exit the Detail Audio Control mode
Press the [VOL] knob for at least 1 second.

- When you set the Bass Extend to ON, low frequency response is extended by 20%.
- You can exit the Audio Control mode at anytime by pressing any button except for [VOL], [ANG] and [ATT] buttons.

Audio Setup

Setting the Sound system, such as Cross over Network.

1 Select the source to adjust
Press the [SRC] button.

2 Enter Audio Setup mode
Press the [VOL] knob for at least 1 second.

3 Select the Audio Setup item to adjust
Press the [VOL] knob.
Each time you press the knob, the item to be adjusted alternates between the items shown in the table below.

4 Setup the Audio item
Turn the [VOL] knob.

Adjustment Item	Display	Range
Front High Pass Filter*2	"HPF-F"	Through/40/60/80/100/120/150/180/220 Hz
Rear High Pass Filter*2	"HPF-R"	Through/40/60/80/100/120/150/180/220 Hz
Low Pass Filter*1,2	"LPF"	50/60/80/100/120/Through Hz
Subwoofer Phase*1,2,3	"SW Phase"	Normal (0°)/ Reverse (180°)
Volume offset	"VOL Offset"	–8 — ±0
Loudness	"Loudness"	ON/OFF
Dual Zone System	"2Zone"	ON/OFF

- Volume offset: Sets each source's volume as a difference from the basic volume.
- Loudness: Compensates for low and high tones during low volume.
- *1 You can control this item when <Subwoofer Output> (page 12) is set to "SW ON".
- *2 You can control this item when "2Zone" of <Audio Setup> (page 12) is set to "OFF".
- *3 You can control this item when Low Pass Filter is not set to Through.
- Dual Zone System
  Main source and sub source (Auxiliary input) output Front channel and Rear channel separately.
  - Set up the channel of sub source by <Dual Zone System Setting> (page 31).
  - Select Main source by [SRC] button.
  - Adjust the volume of Front channel by [VOL] knob.
  - Adjust the volume of Rear channel by <Audio Control> (page 11).
  - The Audio Control has no effect on sub source.
- You can use the Dual Zone System with the Auxiliary input sources listed below.
  - Internal auxiliary input

5 Exit Audio Setup mode
Press [VOL] knob for at least 1 second.

Subwoofer Output

Turning the Subwoofer output ON or OFF.

Hold down on [AM] of the Control knob for at least 1 second.
Each time you press the button, Subwoofer output switches ON and OFF.
When it is ON, "SW ON" is displayed.

- You can control this function when "2Zone" of <Audio Setup> (page 12) is set to "OFF".

Display Setting

Changing the display mode.

1 Enter display Control mode
Press the Control knob for at least 1 second.
"Display Control" is displayed.

2 Select the Display mode
Press the Control knob.
Each time you press the knob, the display alternates between the display modes shown in the table below.

Display Mode	Display
"Display Type A"	⑤
"Display Type B"	④ ⑤
"Display Type C"	① ② ③

① Upper text display part
② Middle text display part
③ Lower text display part
④ Text display part
⑤ Graphic display part

- You can display the information that will be shown in the Upper text display part, the Lower text display part or the Level meter display part according to the setting of Display mode. Refer to the following pages for how to select the mode.

Display Type	A	B	C
Upper ①	—	—	page 15
Middle ②	—	—	page 15
Lower ③	—	—	page 15
Text ④	—	page 14	—
Graphic ⑤	page 18	page 18	—

3 Exit Display Control mode
Press the Control knob for at least 1 second.

Display Type B

Text Selection for Display

Selecting the text display.

1 Enter display control mode
Press the Control knob for at least 1 second.
"Display Control" is displayed.

2 Select the display Type
Press the Control knob.
Select the "Display Type B" display.

3 Select the text display part
Push the Control knob towards [FM] or [AM].
The selected text display part blinks.

4 Push the Control knob towards [⏮] or [⏭].
Each time you push the knob, the display alternates between the Information displays shown in the tables below.

In Tuner source

Information	Display
Station name	"BAND+ch+SNPS"*
Frequency	"BAND+ch+FREQ"
Clock	"Clock"
Date	"Date"

In CD & External disc source

Information	Display
Disc title	"Disc Title"*
Track title	"Track Title"*
Track number & Play time	"P-Time"
Disc name	"DNPS"
Clock	"Clock"
Date	"Date"

In Audio file source

Information	Display
Song title & Artist name	"Title/Artist"*
Album name & Artist name	"Album/Artist"*
Folder name	"Folder Name"
File name	"File Name"
Play time & File number	"P-Time"
Clock	"Clock"
Date	"Date"

In Auxiliary input source

Information	Display
Auxiliary input name	"SRC Name"
Clock	"Clock"
Date	"Date"

In SIRIUS tuner source

Information	Display
Channel Name	"Channel Name"
Song Title	"Song Title"
Artist Name	"Artist Name"
Composer name	"Composer Name"
Category Name	"Category Name"
Label Name	"Label Name"
Comment	"Comment"
Band & Channel Number	"Channel Number"
Clock	"Clock"
Date	"Date"

In HD Radio source

Information	Display
Station name	"Station Name"*
Title	"Title"*
Frequency	"Frequency"
Clock	"Clock"
Date	"Date"

In Standby

Information	Display
Standby	"SRC Name"
Clock	"Clock"
Date	"Date"

- * If the contents of the information cannot be displayed, Play time or Frequency is displayed.
- If the contents of the information for the SIRIUS tuner source cannot be displayed, channel number is displayed.
- When LX-AMP is connected, the item setup by the Display mode of LX-AMP is displayed.
- Track number at Audio file displays the last 3 digits when the track number exceeds 1000 songs.

5 Exit Display control mode
Press the Control knob for at least 1 second.

Display Type C

Text Display Switching

Changing the text display.

1 Enter display control mode
Press the Control knob for at least 1 second.
"Display Control" is displayed.

2 Select the display Type
Press the Control knob.
Select the "Display Type C" display.

3 Select the text display part
Push the Control knob towards [FM] or [AM].
The selected text display part blinks.

Select the text
Push the Control knob towards [I◄◄] or [►►I].
Refer to the table described later for setting items.

4 Exit Display Control mode
Press the Control knob for at least 1 second.

- Same information cannot be displayed in Upper text display part, Middle text display part and Lower text display part. However, the blank display is able to have multiple selections.
- If the contents of the information for the SIRIUS tuner source cannot be displayed, channel number is displayed.
- When LX-AMP is connected, the item setup by the Display mode of LX-AMP is displayed.
- Track number at Audio file displays the last 3 digits when the track number exceeds 1000 songs.

The text display in the Upper text display part

In Tuner source

Information	Display
Station name	"BAND+ch+SNPS"*
Frequency	"BAND+ch+FREQ"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"

In CD & External disc source

Information	Display
Disc title	"Disc Title"*
Track title	"Track Title"*
Track number & Play time	"P-Time"
Disc name	"DNPS"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"

In Audio file source

Information	Display
Song title & Artist name	"Title/Artist"*
Album name & Artist name	"Album/Artist"*
Folder name	"Folder Name"
File name	"File Name"
Play time & File number	"P-Time"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"

In Standby

Information	Display
Standby	"SRC Name"
Clock	"Clock"
Date	"Date"

In Auxiliary input source

Information	Display
Auxiliary input name	"SRC Name"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"

In HD Radio source

Information	Display
Station name	"Station Name"*
Title	"Title"*
Frequency	"Frequency"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"

In SIRIUS tuner source

Information	Display
Channel Name	"Channel Name"
Song Title	"Song Title"
Artist Name	"Artist Name"
Composer name	"Composer Name"
Category Name	"Category Name"
Label Name	"Label Name"
Comment	"Comment"
Band & Channel Number	"Channel Number"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"

- * If the contents of the information cannot be displayed, Play time or Frequency is displayed.

The text display in the Middle text display part

In Tuner source

Information	Display
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

In CD & External disc source

Information	Display
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"
Disc title	"Disc Title"*
Track title	"Track Title"*
Disc name	"DNPS"

In Audio file source

Information	Display
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"
Song title & Artist name	"Title/Artist"*
Album name & Artist name	"Album/Artist"*
Folder name	"Folder Name"
File name	"File Name"

In Standby

Information	Display
Clock	"Clock"
Date	"Date"
Blank	"Blank"

In Auxiliary input source

Information	Display
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

In HD Radio source

Information	Display
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"
Title	"Title"*

In SIRIUS tuner source

Information	Display
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"
Channel Name	"Channel Name"
Song Title	"Song Title"
Artist Name	"Artist Name"
Composer name	"Composer Name"
Category Name	"Category Name"
Label	"Label Name"
Comment	"Comment"

- * If the contents of the information cannot be displayed, Kenwood Logo is displayed. However, in HD Radio source, the display becomes blank.

The text display in the Lower text display part

In Tuner source

Information	Display
Indicator	"Indicator"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

In CD & External disc source

Information	Display
Indicator	"Indicator"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"
Disc title	"Disc Title"*
Track title	"Track Title"*
Disc name	"DNPS"

In Audio file source

Information	Display
Indicator	"Indicator"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"
Song title & Artist name	"Title/Artist"*
Album name & Artist name	"Album/Artist"*
Folder name	"Folder Name"
File name	"File Name"

In Standby

Information	Display
Indicator	"Indicator"
Clock	"Clock"
Date	"Date"
Blank	"Blank"

In Auxiliary input source

Information	Display
Indicator	"Indicator"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

In HD Radio source

Information	Display
Indicator	"Indicator"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"
Title	"Title"*

In SIRIUS tuner source

Information	Display
Indicator	"Indicator"
Spectrum Analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"
Channel Name	"Channel Name"
Song Title	"Song Title"
Artist Name	"Artist Name"
Composer name	"Composer Name"
Category Name	"Category Name"
Label	"Label Name"
Comment	"Comment"

- * If the contents of the information cannot be displayed, indicator is displayed. However, In HD Radio source, a display becomes a blank display.

Display Type A/ Display Type B

Graphic part/ Spectrum Analyzer Display Switching

Changing the graphic Display/ Spectrum analyzer display.

1 Enter display control mode
Press the Control knob for at least 1 second.
"Display Control" is displayed.

2 Select the display Type
Press the Control knob.
Select the "Display Type A"/ "Display Type B" display.

3 Select the graphic/ spectrum analyzer display ("Display Type B" only)
Push the Control knob towards [FM] or [AM].
The blinking text display part stops.

4 Select the graphic/ spectrum analyzer display part display
Push the Control knob towards [I◄◄] or [►►I].
Each time you push the knob, the display alternates between the display names shown in the table below.

Graphic display/ Spectrum Analyzer display
Wallpaper 1 – 5
Spectrum analyzer 1 – 5

5 Exit Display control mode
Press the Control knob for at least 1 second.

Station/Disc Naming (SNPS/DNPS)

Attaching a title to a Station or CD.

1 Receive/play the station/disc you want to attach a title to

- A title cannot be attached to MD or Audio file media.

2 Enter Menu mode
Press the [MENU] button for at least 1 second.
"Menu" is displayed.

3 Select Name set mode
Push the Control knob towards [FM] or [AM].
Select the "Name Set" display.

4 Enter Name set mode
Press the Control knob for at least 1 second.

5 Move the cursor to the enter character position
Push the Control knob towards [I◄◄] or [►►I].

6 Select the character type
Press the Control knob.
Each time you press the knob, the character type alternates between the types shown in the table below.

Character type
Alphabet upper case
Alphabet lower case
Numbers and symbols
Special characters (Accent characters)

7 Select the characters
Push the Control knob towards [FM] or [AM].

- Enter characters by using a remote control with numbers buttons.
  Example: If you are entering "DANCE".

Character	Button	Times pressed
"D"	[3]	1
"A"	[2]	1
"N"	[6]	2
"C"	[2]	3
"E"	[3]	2

8 Repeat steps 5 through 7 and enter the name.

9 Exit Menu mode
Press the [MENU] button.

- When operation stops for 10 seconds the name at that time is registered, and Name Set mode closes.
- Memory numbers
  - FM/AM: 30 stations
  - Internal CD player: 10 discs
  - External CD changer/ player: Varies according to the CD changer/ player. Refer to the CD changer/ player manual.
- Change the title of station/CD by the same operation used to name it.

Faceplate Angle Adjustment

Press the [ANG] button for at least 1 second.

- Do not apply excessive force to the faceplate. It can cause damage.

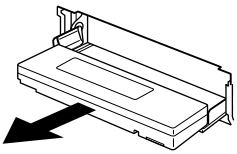
Theft Deterrent Faceplate

The faceplate of the unit can be detached and taken with you, helping to deter theft.

Removing the Faceplate

1 Turn the ignition OFF or press the [SRC] button for at least 1 second.
The power turns OFF and the faceplate slides open.

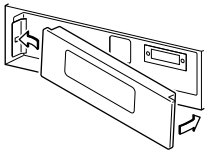
2 Holding the center part of the faceplate pull it out.



- When the faceplate is kept remove open, according to the <OFF Wait Time Setting> (page 31) setting, the faceplate is hidden and the power turns OFF.
- The faceplate is a precision piece of equipment and can be damaged by shocks or jolts. For that reason, keep the faceplate in its special storage case while detached.
- Do not expose the faceplate or its storage case to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.

Reattaching the Faceplate

1 Set the left side of the faceplate in the faceplate bracket.



2 Press the right side of the faceplate until it locks.

- Use the enclosed or dedicated faceplate. Using a faceplate other than the specified one may cause your unit to malfunction.

TEL Mute

The audio system automatically mutes when a call comes in.

When a call comes in

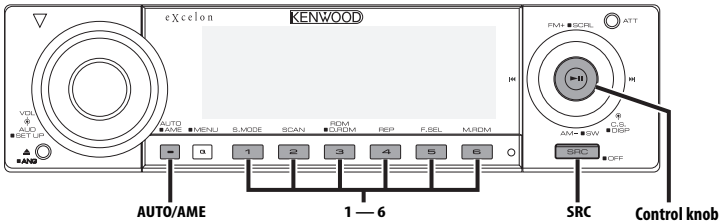
"CALL" is displayed.
The audio system pauses.

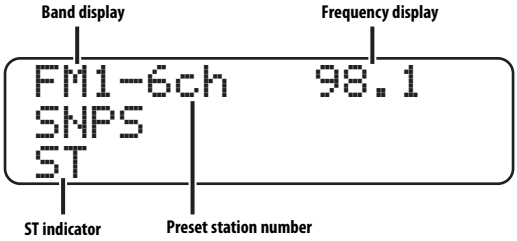
Listening to the audio during a call

Press the [SRC] button.
The "CALL" display disappears and the audio system comes back ON.

When the call ends

Hang up the phone.
The "CALL" display disappears and the audio system comes back ON.





Tuning

Selecting the station.

1 Select tuner source
Press the [SRC] button.
Select the "TUNER" display.

2 Select the band
Push the Control knob towards [FM] or [AM].
Each time you push the knob toward [FM], it switches between the FM1, FM2, and FM3 bands.

3 Tune up or down band
Push the Control knob towards [I◄◄] or [►►I].

- During reception of stereo stations the "ST" indicator is ON.

Tuning Mode

Choose the tuning mode.

Press the [AUTO] button.
Each time you press the button, the Tuning mode alternates between the modes shown in the table below.

Tuning mode	Display	Operation
Auto seek	"Seek Mode: Auto1"	Automatic search for a station.
Preset station seek	"Seek Mode: Auto2"	Search in order of the stations in the Preset memory.
Manual	"Seek Mode: Manual"	Normal manual tuning control.

Function of remote control

Direct Access Tuning

Entering the frequency and tuning.

1 Select the band
Press the [FM] or [AM] button.

2 Enter Direct Access Tuning mode
Press the [DIRECT] button on the remote control.
"– – – –" is displayed.

3 Enter the frequency
Press the number buttons on the remote control.
Example:

Desired frequency	Press button
92.1 MHz (FM)	[0], [9], [2], [1]
810 kHz (AM)	[0], [8], [1], [0]

Cancelling Direct Access Tuning
Press the [DIRECT] button on the remote control.

Station Preset Memory

Putting a station in the memory.

1 Select the band
Push the Control knob towards [FM] or [AM].

2 Select the frequency to put in the memory
Push the Control knob towards [I◄◄] or [►►I].

3 Put the frequency in the memory
Press the desired [1] — [6] button for at least 2 seconds.
The preset number display blinks 1 time.
On each band, 1 station can be put in the memory on each [1] — [6] button.

Auto Memory Entry

Putting stations with good reception in the memory automatically.

1 Select the band for Auto Memory Entry
Push the Control knob towards [FM] or [AM].

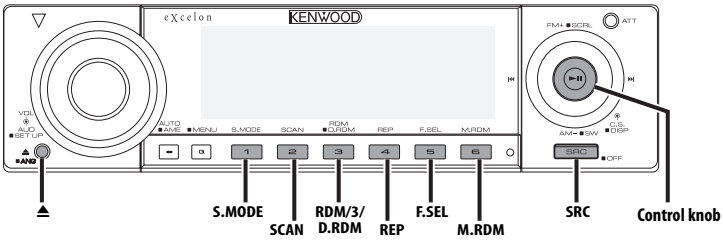
2 Open Auto Memory Entry
Press the [AME] button for at least 2 seconds.
When 6 stations that can be received are put in the memory Auto Memory Entry closes.

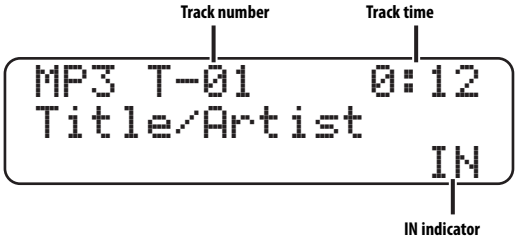
Preset Tuning

Recalling the stations in the memory.

1 Select the band
Push the Control knob towards [FM] or [AM].

2 Recall the station
Press the desired [1] — [6] button.





Playing CD & Audio file

When there is no disc inserted

1 Open the panel
Press the [⏏] button.

2 Insert a disc.

- When the faceplate slides open, it might interfere with the shift lever or other vehicle function. If this happens, pay attention to safety and move the shift lever or take an appropriate action to remove the obstacle, then operate the unit.
- Insert the disc horizontal to the slot. If you insert the Disc as you push down on the Disc, it may scratch the Disc.

- The sound will be temporarily muted while the faceplate is moving.
- You can cancel the announcement when selecting the folder by <Voice Index> (page 34) during the play of the ACDrive.
- When a disc is inserted the "IN" indicator is ON.

When a disc is inserted

Press the [SRC] button.
Select the "Compact Disc" display.

Pause and play

Press the Control knob.
Each time you press the knob, the audio pauses or plays.

Eject the disc

1 Eject the disc
Press the [⏏] button.

2 Return the panel to the original position
Press the [⏏] button.

Playing External Disc

Playing discs set in the optional accessory disc player connected to this unit.

Press the [SRC] button.

Select the display for the disc player you want.

Display examples:

Display	Disc player
"CD Changer"	CD changer
"MD Changer"	MD changer

Pause and play

Press the Control knob.

Each time you press the knob, the audio pauses or plays.

- The functions that can be used and the information that can be displayed will differ depending on the external disc players being connected.

Fast Forwarding and Reversing

Fast Forwarding

Hold down toward [►►I] with the Control knob.

Release your finger to play the disc at that point.

Reversing

Hold down toward [I◄◄] with the Control knob.

Release your finger to play the disc at that point.

- There is no sound while the Audio file is being searched.

Track/File Search

Searching for a song on the disc or in the Audio file folder.

Push the Control knob towards [I◄◄] or [►►I].

Function of disc changer/ Audio file

Disc Search/Folder Search

Selecting the disc set in the Disc changer or the folder recorded on the Audio file media.

Push the Control knob towards [FM] or [AM].

Function of remote control

Direct Track/File Search

Doing Track/File Search by entering the track/file number.

1 Enter the track/file number

Press the number buttons on the remote control.

- You can select Direct File Search up to 999.

2 Do Track/File Search

Press the [I◄◄] or [►►I] button.

Cancelling Direct Track/File Search

Press the [►II] button.

Function of disc changers with remote control

Direct Disc Search

Doing Disc Search by entering the disc number.

1 Enter the disc number

Press the number buttons on the remote control.

2 Do Disc Search

Press the [+] or [–] button.

Cancelling Direct Disc Search

Press the [►II] button.

- Input "0" to select disc 10.

Track/File/Disc/Folder Repeat

Replaying the song, disc in the Disc changer or Audio file folder you are listening to.

Press the [REP] button.
Each time you press the button, the Repeat Play alternates between the modes shown in the tables below.

In CD & External disc source

Repeat play	Display
Track Repeat	"Repeat ON"/ "Track Repeat ON"
Disc Repeat (In Disc Changer)	"Disc Repeat ON"
OFF	"Repeat OFF"

In Audio file

Repeat play	Display
File Repeat	"File Repeat ON"
Folder Repeat	"Folder Repeat ON"
OFF	"Repeat OFF"

Scan Play

Playing the first part of each song on the disc or Audio file folder you are listening to and searching for the song you want to hear.

1 Start Scan Play
Press the [SCAN] button.
"Scan ON" is displayed.

2 Release the button when the song you want to hear is played
Press the [SCAN] button.

Random Play

Play all the songs on the disc or Audio file folder in random order.

Press the [RDM] button.
Each time you press the button, Random Play turns ON or OFF.
When the Random mode is ON, "Random ON" is displayed.

- When you push the Control knob toward [►►I], the next random song starts.

Function of disc changer

Magazine Random Play

Play the songs on all the discs in the disc changer in random order.

Press the [M.RDM] button.
Each time you press the button, the Magazine Random Play turns ON or OFF.
When the Magazine Random mode is ON, "Magazine RDM ON" is displayed.

- When you push the Control knob toward [►►I], the next random song starts.

Function of Audio file

Disc Random Play

Playing randomly from all of the Audio files recorded in the disc.

Press the [RDM] button for at least 1 second.
When the random mode is ON, "Disc Random ON" is displayed.

Cancelling the Disc Random Play
Press the [RDM] button.

- When you push the Control knob toward [►►I], the next random song starts.

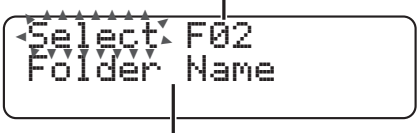
Function of Audio file

Folder Select

Quickly selecting the folder you want to hear.

1 Enter Folder Select mode
Press the [F.SEL] button.
"Select Mode" is displayed.
During Select mode the folder information is displayed as shown below.

Folder number display
Displays the number in the folder belonging to the currently selected folder.



Folder name display
Displays the current folder name.

- The Folder number display does not function when <Disc Random Play> (page 25) is ON.

2 Select the folder level*
Push the Control knob towards [FM] or [AM].
With the [FM] of the Control knob, you move 1 level down and with the [AM] of the Control knob, 1 level up.

Selecting a folder in the same level
Push the Control knob towards [I◄◄] or [►►I].
With the [I◄◄] of the Control knob, you move to the previous folder, and with the [►►I] of the Control knob, to the next folder.

Returning to the top level*
Press the [3] button.

- * You can operate this function when <Switching the Play mode> (page 26) is set to "Folder Mode" while playing ACDrive disc.

3 Decide the folder to play
Press the Control knob.
The Folder Select mode releases, and the Audio file in the folder being displayed plays.

Cancelling the Folder Select mode
Press the [F.SEL] button.

Function of ACDrive disc

Switching the Play mode

Arrange the playing orders of the songs by categories.

Press the [S.MODE] button.
Each time you press the button, the Play mode alternates between the modes shown on the table below.

Play mode	Category which is to be arranged
"PlayList Mode"	Play list order.
"Genre Mode"	By genre.
"Artist Mode"	By artist.
"Album Mode"	By album.
"Folder Mode"	By the folder recorded in Disc.

- The category information of each song is the data registered in Media Manager when ACDrive disc is being generated.
- You can cancel the announcement made when the mode is changed by <Voice Index> (page 34).
- You can select the advancement of the Play mode information by [AM] and [FM] keys.

Function of ACDrive disc

Letter Seek

You can search for the song, you want to play, by selecting the initial of Genre name, Artist name, or Album name.

1 Enter the Letter Seek mode
Press the [S.MODE] button for at least 1 second.

- This operation does not function when <Disc Random Play> (page 25) is ON.
- This function is available only when the Play mode is set Genre, Artist, or Album.

Cancelling the Letter Seek
Press the [S.MODE] button.

2 Start the Letter Seek

Push the Control knob towards [I◄◄] or [►►I].

The initial of Genre name, Artist name, or Album name is displayed and announced in order.

- The announcement of the initial can be canceled by <Voice Index> (page34).
- When you push the Control knob to the reverse [I◄◄] or [►►I] during Letter Seek, the initial is displayed and announced in the reversed order.
- Once Letter Seek starts, it cannot be cancelled.

3 Select the song to play

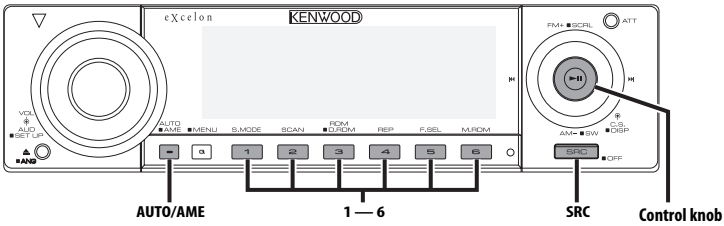
Press the Control knob when the initial of the song you are searching is displayed and announced.

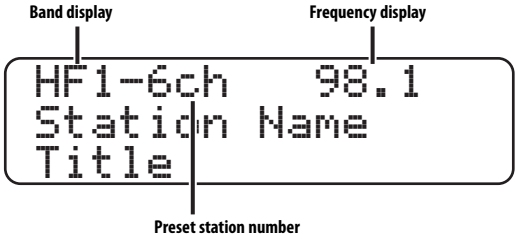
The selected initial group plays.

Text/Title Scroll

Scrolling the displayed CD text, Audio file text, or MD title.

Push the Control knob toward [FM] for at least 1 second.





- When you connect an HD Radio, Tuner features of the unit are disabled and changed to HD Radio tuner features. A portion of the setting methods including the Tuning Mode will change.
- With the HD Radio tuner, you can use the similar functions to <Station Preset Memory>, <Auto Memory Entry>, and <Preset Tuning> of Tuner features. Refer to Tuner features for how to use the functions.

Tuning

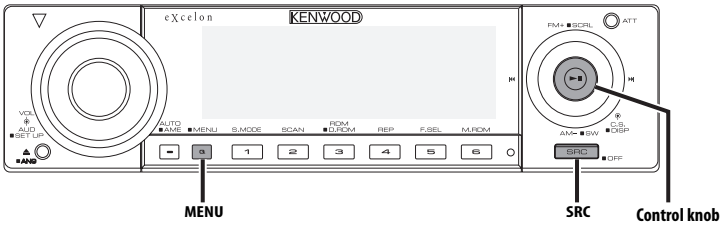
Selecting the station.

1 Select HD Radio source
Press the [SRC] button.
Select the "HD Radio" display.

2 Select the HD FM band
Push the Control knob toward [FM].
Each time you push the knob to [FM], the band alternates between the HF1, HF2, and HF3 bands.

Select the HD AM band
Push the Control knob toward [AM].

3 Tune up or down band
Push the Control knob towards [I◄◄] or [►►I].



Menu System

Setting beep sound during operation, etc. functions.
The Menu system basic operation method is explained here. The reference for the Menu items and their setting content is after this operation explanation.

1 Enter Menu mode
Press the [MENU] button for at least 1 second.
"Menu" is displayed.

2 Select the menu item
Push the Control knob towards [FM] or [AM].
Example: When you want to set the beep sound select the "Beep" display.

3 Set the menu item
Push the Control knob towards [|◄◄] or [►►|].
Example: When you select "Beep", each time you push the knob it alternates between "Beep:ON" or "Beep:OFF". Select 1 of them as the setting.

You can continue by returning to step 2 and setting other items.

4 Exit Menu mode
Press the [MENU] button.

- When other items those applicable to the basic operation method above are displayed, their setting content chart is entered. (Normally the setting listed at the top of the chart is the original setting.)
  Also, the explanation for items that are not applicable (<Manual Clock Adjustment> etc.) are entered step by step.
- Three menu items appear on the display. The menu item displayed at the center is the one you can adjust.

In Standby mode

Security Code

Because authorization by the Security Code is required when the audio unit is removed from the vehicle, personalizing this unit by using the Security Code is helpful in preventing theft.

- Setup Security Code when the <Demonstration mode Setting> (page 35) is set as OFF.
- When you activate the Security Code function, the code cannot be changed and the function cannot be released. Note, you can set the Security Code with a 4 digit number of your choice.

1 Enter Standby
Press the [SRC] button.
Select the "STANDBY" display.

2 Enter Menu mode
Press the [MENU] button for at least 1 second.
When "Menu" is displayed, "Security" is also displayed.

3 Enter Security Code mode
Press the Control knob for at least 1 second.
When "Enter" is displayed, "CODE" is also displayed.

4 Select the digits to enter
Push the Control knob towards [I◄◄] or [►►I].

5 Select the Security Code numbers
Push the Control knob towards [FM] or [AM].

6 Repeat steps 4 and 5, and complete the Security Code.

7 Confirm the Security Code
Press the Control knob for at least 3 seconds.
When "Re-Enter" is displayed, "CODE" is also displayed.

8 Do the step 4 through 7 operation, and reenter the Security Code.
"Approved" is displayed.
The Security Code function activates.

- If you enter the wrong Code in steps 4 through 6, repeat from step 4.

Press the Reset button when the audio unit is removed from the battery power source

1 Turn the power ON.

2 Do the step 4 through 7 operation, and enter the Security Code.
"Approved" is displayed.
You can being using the unit.

In Standby mode

Touch Sensor Tone

Setting the operation check sound (beep sound) ON/OFF.

Display	Setting
"Beep:ON"	Beep is heard.
"Beep:OFF"	Beep canceled.

In Standby mode

Manual Clock Adjustment

1 Select Clock Adjustment mode
Push the Control knob towards [FM] or [AM].
Select the "Clock Adjust" display.

2 Enter Clock Adjust mode
Press the Control knob for at least 1 second.
The clock display blinks.

3 Adjust the hours
Push the Control knob towards [FM] or [AM].

Adjust the minutes
Push the Control knob towards [I◄◄] or [►►I].

4 Exit Clock adjustment mode
Press the [MENU] button.

In Standby mode

Date Adjustment

1 Select Date Adjust mode
Push the knob towards [FM] or [AM].
Select the "Date Adjust" display.

2 Enter Date Adjust mode
Press the Control knob for at least 1 second.
The date display blinks.

3 Selecting the item (day, month, or year) to adjust
Push the Control knob towards [I◄◄] or [►►I].
The items that are blinking are items that you can adjust.

4 Adjust each item
Push the Control knob towards [FM] or [AM].

5 Repeat step 3 and 4 operation and adjust the date.

6 Exit Date adjustment mode
Press the [MENU] button.

In Standby mode

Date Mode

Setting the date format.

1 Select Date Mode
Push the Control knob towards [FM] or [AM].
Select the "Date Mode" display.

2 Select the date format
Push the Control knob towards [I◄◄] or [►►I].

3 Exit Date mode
Push the Control knob towards [FM] or [AM].

In Standby mode

Dimmer

Dimming this unit's display automatically when the vehicle light switch is turned ON.

Display	Setting
"Dimmer:ON"	The display dims.
"Dimmer:OFF"	The display doesn't dim.

In Standby mode

OFF Wait Time Setting

Setting the time until the faceplate hiding operation starts after the power is turned OFF. You can only remove the faceplate during the set time period.

Display and Setting
"Off Wait:0sec"
⋮
"Off Wait:3sec" (Original setting)
⋮
"Off Wait:25sec"

In Standby mode

Built-in Amp Setting

Controlling the built-in amplifier.
Turning OFF this control enhances the preout quality.

Display	Setting
"AMP:ON"	The built-in amplifier activates.
"AMP:OFF"	The built-in amplifier deactivates.

Other than Standby mode/
When the Dual Zone System is ON

Dual Zone System Setting

Setting the Front channel and Rear channel sound in the Dual Zone System.

Display	Setting
"Zone2:Rear"	Sub source (Auxiliary input source) is to be rear channel.
"Zone2:Front"	Sub source (Auxiliary input source) is to be front channel.

Other than Standby mode

B.M.S. (Bass Management System)

Adjust the bass boost level of the external amplifier using the main unit.

Display	Setting
"AMP Bass:Flat"	Bass boost level is flat.
"AMP Bass:+6"	Bass boost level is low (+6dB).
"AMP Bass:+12"	Bass boost level is mid (+12dB).
"AMP Bass:+18"	Bass boost level is high (+18dB).

- Refer to the catalog or instruction manual for power amplifiers that can be controlled from this unit.
- For amplifiers, there are the models you can set from Flat to +18 dB, and the models you can set from Flat to +12 dB.
  When an amplifier that can only be set to +12 is connected to the unit, "AMP Bass:+18" will not work correctly even if it is selected.

Other than Standby mode

B.M.S. Frequency Offset

Setting the central frequency, boosted by B.M.S.

Display	Setting
"AMP FREQ:Normal"	Boost with the normal central frequency.
"AMP FREQ:Low"	Drop the normal central frequency 20%.

When LX AMP unit connecting

AMP Control

You can control the LX AMP connected to the unit.

1 Select AMP Control mode
Push the Control knob towards [FM] or [AM].
Select the "AMS Control" display.

2 Enter AMP Control mode
Press the Control knob for at least 1 second.

3 Select the AMP Control item for adjustment
Push the Control knob towards [FM] or [AM].

- For the details on the AMP Control item, see the Instruction manual attached to the LX AMP.

4 Adjust the AMP Control item
Push the Control knob towards [I◄◄] or [►►I].

5 Exit AMP Control mode
Press the [MENU] button.

- You cannot use the LX AMP operation during standby mode.

In FM reception

CRSC (Clean Reception System Circuit)

Temporarily have reception alternate from stereo to mono to reduce multi-path noise when listening to the FM station.

Display	Setting
"CRSC:ON"	The CRSC is ON.
"CRSC:OFF"	The CRSC is OFF.

- Strong electrical fields (such as from power lines) may cause unstable sound quality when CRSC is turned ON. In such a situation, turn it OFF.

In HD Radio mode

Receive mode Setting

Sets the receive mode.

1 Select the Receive mode
Push the Control knob towards [FM] or [AM].
Select the "Receive Mode" display.

2 Enter Receive mode
Press the Control knob for at least 1 second.

3 Set the Receive mode
Push the Control knob towards [FM] or [AM].
Each time you push the knob, the Receive mode alternates between the modes shown in the table below.

Receive mode	Display	Operation
Auto mode	"Auto"	Analog broadcasts and digital broadcasts will be switched automatically. When both are being transmitted, the digital broadcast will have priority.
Digital	"Digital"	Digital broadcasts only.
Analog	"Analog"	Analog broadcasts only.

4 Exit Receive mode
Press the [MENU] button.

- Even if the Receive mode is set to "Auto", when the Ball game mode program (non-delayed broadcast program) is received, the Receive mode will automatically switch to Analog broadcast only.

In SIRIUS tuner source

SIRIUS ID (ESN) display

Displaying the SIRIUS ID (Electronic Serial Number)

Display
"ESN:**********"

- Serial & SIRIUS ID (ESN)
  It is important to retain the unit serial number and the electronic SIRIUS Identification number for service activation and potential service changes.

Auxiliary Input Display Setting & Station/Disc Naming

Selecting the display when changing to Auxiliary input source. For the Station/Disc Naming refer to the <Station/Disc Naming (SNPS/DNPS)> (page 19).

1 Select Auxiliary input source
Press the [SRC] button.
Select the "AUX"/ "AUX EXT" display.

2 Enter Menu mode
Press the [MENU] button for at least 1 second.
"Menu" is displayed.

3 Select Auxiliary input display setting mode
Push the Control knob towards [FM] or [AM].
Select the "Name Set" display.

4 Enter Auxiliary input display setting mode
Press the Control knob for at least 1 second.
The presently selected Auxiliary input display is displayed.

5 Select the Auxiliary input display
Push the Control knob towards [I◄◄] or [►►I].
Each time you press the button, the display alternates as listed below.
- "AUX"/ "AUX EXT"
- "DVD"
- "PORTABLE"
- "GAME"
- "VIDEO"
- "TV"

6 Exit Auxiliary input display setting mode
Press the [MENU] button.

- When operation stops for 10 seconds, the name at that time is registered, and the Auxiliary input display setting mode closes.
- The Auxiliary Input Display can be set only when the built-in auxiliary input or the auxiliary input of optional KCA-S210A is used.

Text Scroll

Setting the displayed text scroll.

Display	Setting
"Scroll:Auto"	Repeats scroll.
"Scroll:Manual"	Scrolls when the display changes.

- The text scrolled is listed below.
  - CD text
  - Folder name/ File name/ Song title/ Artist name/ Album name
  - MD title
  - Text for the SIRIUS tuner source, HD Radio source, including Channel name, etc.

In Standby mode

Built-in Auxiliary input Setting

Set the Built-in Auxiliary Input function.

Display	Setting
"Builtin AUX:OFF"	When selecting the source there's no Auxiliary Input.
"Builtin AUX:ON"	When selecting the source there's Auxiliary Input.

In Standby mode

CD Read Setting

When there is a problem with playing a CD with special format, this setting plays the CD by force.

Display	Setting
"CD Read:1"	Play CD and Audio file.
"CD Read:2"	Play CD by force.

- Setting "CD Read:2" cannot play Audio file. Some music CDs may not play even in the "CD Read:2" mode.

Function of ACDrive disc

Voice Index

Setting the announcement during the play of ACDrive disc.

Display	Setting
"Voice Index:ON"	Guide is announced.
"Voice Index:OFF"	Not be announced.

In CD mode

ACDrive firmware version display

Displaying the firmware version with the ACDrive function.

1 Select the firmware version display mode
Push the Control knob towards [FM] or [AM].
Select the "ACD F/W Version" display.

2 Display the ACDrive firmware version
Push the Control knob towards [I◄◄] or [►►I].

In CD mode

Unique ID display

Displaying the serial number for each product.

1 Select the unique ID display mode
Push the Control knob towards [FM] or [AM].
Select the "ACD Unique ID" display.

2 Display the unique ID
Push the Control knob towards [I◄◄] or [►►I].

Audio Preset Memory

Registering the value setup by Sound Control. The memory cannot be erased by the Reset button.

1 Setup Sound Control
Refer to the following operations to setup the Sound Control.
- <Audio Control> (page 11)
- <Audio Setup> (page 12)

2 Enter Menu mode
Press the [MENU] button for at least 1 second.
"Menu" is displayed.

3 Select Audio Preset mode
Push the Control knob towards [FM] or [AM].
Select the "Audio Preset" display.

4 Enter Audio Preset mode
Press the Control knob for at least 1 second.

5 Select the Audio Preset Memory
Push the Control knob towards [FM] or [AM].
Select the "Memory" display.

6 Put the Audio Preset in the memory
Press the Control knob for at least 2 seconds.
The "Memory" display blinks 1 time.

7 Exit Menu mode
Press the [MENU] button.

- Register 1 pair of Audio Preset Memory. You cannot register by the source.
- When you press the Reset, all the sources will be the setting value which is registered.
- The following items cannot be registered.
  Volume, Balance, Fader, Loudness, Volume offset, Dual Zone System, Rear Volume

Audio Preset Call

Recalling the sound setup registered by <Audio Preset Memory> (page 34).

1 Select the source
Press the [SRC] button.

2 Enter Menu mode
Press the [MENU] button for at least 1 second.
"Menu" is displayed.

3 Select Audio Preset mode
Push the Control knob towards [FM] or [AM].
Select the "Audio Preset" display.

4 Enter Audio Preset mode
Press the Control knob for at least 1 second.

5 Select the Audio Preset Recall
Push the Control knob towards [FM] or [AM].
Select the "Recall" display.

6 Recall the Audio Preset
Press the Control knob for at least 2 seconds.
The "Recall" display blinks 1 time.

7 Exit Menu mode
Press the [MENU] button.

- The User memory of <System Q> (page 10) is changed to the value which was recalled.
- The source tone memory item of <Audio Control> (page 11) is changed to the value which was recalled by the selected source.

In Standby mode

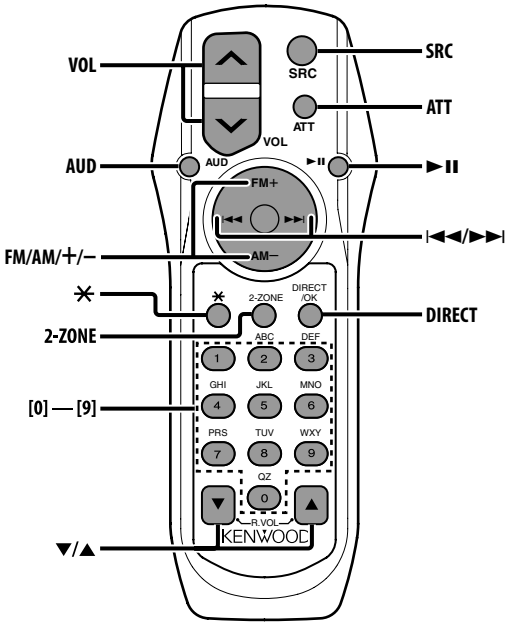
Demonstration mode Setting

Sets the demonstration mode.

1 Select the Demonstration mode
Push the Control knob towards [FM] or [AM].
Select the "DEMO Mode" display.

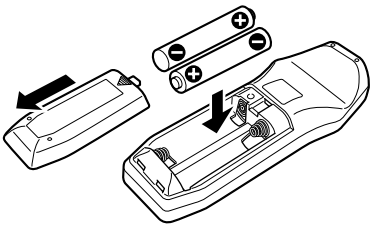
2 Set the Demonstration mode
Press the Control knob for at least 2 seconds.
Each time you press the knob at least 2 seconds, the Demonstration mode alternates between the settings shown in the table below.

Display	Setting
"DEMO Mode:ON"	The Demonstration mode function is ON.
"DEMO Mode:OFF"	Exit Demonstration mode (Normal mode).



Loading and Replacing the battery

Use two "AA"-size batteries.
Slide the cover while pressing downwards to remove it as illustrated.
Insert the batteries with the + and – poles aligned properly, following the illustration inside the case.



⚠WARNING

- Store unused batteries out of the reach of children. Contact a doctor immediately if the battery is accidentally swallowed.

⚠

- Do not set the remote control in hot places such as above the dashboard.

Basic operations

[VOL] buttons
Adjusts the volume.

[SRC] button
Each time you press the button, the source alternates.
For the source alternating order refer to <Selecting the Source> (page 10).

[ATT] button
Turns the volume down quickly.
When the button is pressed again, the volume returns to the previous level.

[✱] button
Adjusts the Faceplate Angle.

Audio Control

[AUD] button

Selects the Audio item to be adjusted.

[VOL] buttons

Adjusts the Audio item.

- Refer to <Audio Control> (page 11) for the operation method, such as the procedures for Audio control and others operations.
- The remote control can only select and adjust the Basic Audio item. Selecting and adjusting of the Detail Audio item cannot be done.

Dual Zone System

[2-ZONE] button

Each time you press the button, "2Zone" of <Audio Setup> (page 12) is turned ON or OFF.

[▲]/ [▼] buttons

Adjusts the volume of the rear channel.
The rear channel activates while the Dual Zone System is ON.

In Tuner source

[FM]/ [AM] buttons

Selects the band.
Each time you press the [FM] button, the band alternates between the FM1, FM2, and FM3 bands.

[I◄◄]/ [►►I] buttons

Tune up or down band.

[0] — [9] buttons

Press buttons [1] — [6] to recall preset stations.

[DIRECT] button

Enters and cancels the <Direct Access Tuning> (page 22) mode.

In Disc source

[I◄◄]/ [►►I] buttons

Going forwards and backwards between track/ files.

[+]/ [−] buttons

Going forwards and backwards between disc/ folders.

[►II] button

Each time you press the button, the song pauses or plays.

[0] — [9] buttons

When in <Direct Track/File Search> (page 24) and <Direct Disc Search> (page 24), enters the track/ file/disc number.

In SIRIUS tuner source

[FM] button

Selects the preset band.

[I◄◄]/ [►►I] buttons

Searches up or down channels.

[0] — [9] buttons

Press buttons [1] — [6] to recall preset channels.

[DIRECT] button

Enters and cancels the <Direct Access Tuning> mode.

- Refer to the instruction manual of SIRIUS Satellite radio tuner for <Direct Access Tuning> function.

In HD Radio source

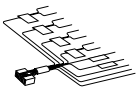
[FM] button
Selects the HD FM band.
Each time you press the [FM] button, the band alternates between the HF1, HF2, and HF3 bands.

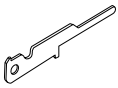
[AM] button
Selects the HD AM band.

[I◄◄]/ [►►I] buttons
Tunes up or down bands.

[0] — [9] buttons
Press buttons [1] — [6] to recall preset stations.

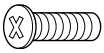
Accessories

①  1

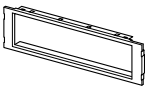
②  2

③ 2

④ 2

⑤  1

⑥ 2

⑦  1

⑧ 1

Installation Procedure

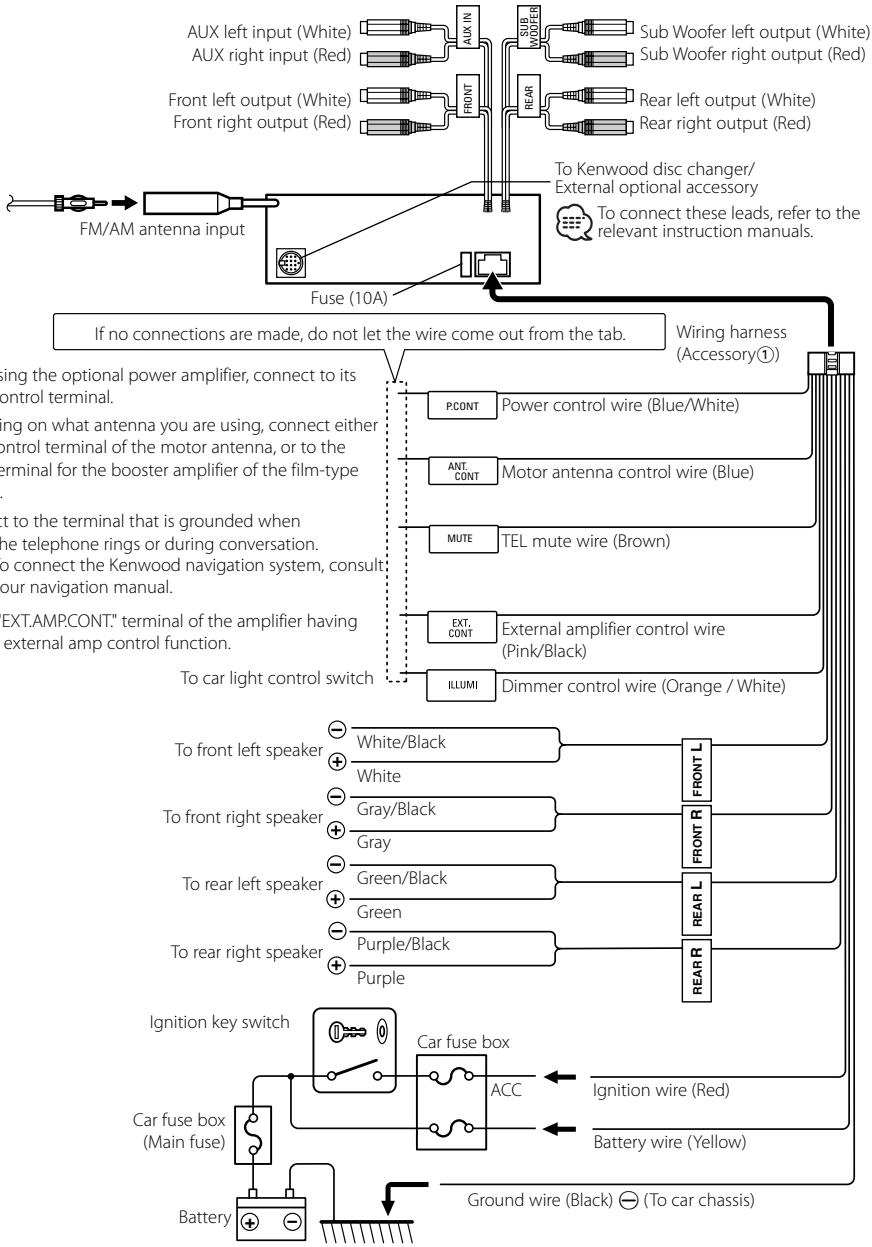
1. To prevent a short circuit, remove the key from the ignition and disconnect the ⊖ battery.
2. Make the proper input and output wire connections for each unit.
3. Connect the speaker wires of the wiring harness.
4. Connect the wiring harness wires in the following order: ground, battery, ignition.
5. Connect the wiring harness connector to the unit.
6. Install the unit in your car.
7. Reconnect the ⊖ battery.
8. Press the reset button.

⚠WARNING

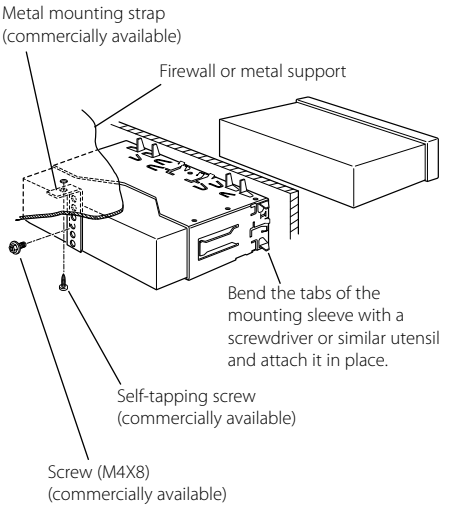
If you connect the ignition wire (red) and the battery wire (yellow) to the car chassis (ground), you may cause a short circuit, that in turn may start a fire. Always connect those wires to the power source running through the fuse box.

⚠

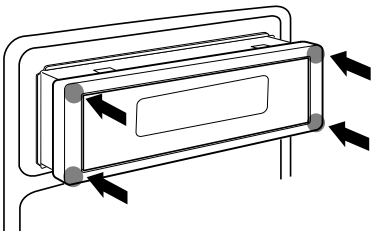
- If your car's ignition does not have an ACC position, connect the ignition wires to a power source that can be turned on and off with the ignition key. If you connect the ignition wire to a power source with a constant voltage supply, as with battery wires, the battery may die.
- If the console has a lid, make sure to install the unit so that the faceplate will not hit the lid when closing and opening.
- If the fuse blows, first make sure the wires aren't touching to cause a short circuit, then replace the old fuse with one with the same rating.
- Insulate unconnected wires with vinyl tape or other similar material. To prevent a short circuit, do not remove the caps on the ends of the unconnected wires or the terminals.
- Connect the speaker wires correctly to the terminals to which they correspond. The unit may be damaged or fail to work if you share the ⊖ wires or ground them to any metal part in the car.
- When only two speakers are being connected to the system, connect the connectors either to both the front output terminals or to both the rear output terminals (do not mix front and rear). For example, if you connect the ⊕ connector of the left speaker to a front output terminal, do not connect the ⊖ connector to a rear output terminal.
- After the unit is installed, check whether the brake lamps, blinkers, wipers, etc. on the car are working properly.
- Mount the unit so that the mounting angle is 30° or less.


AUX left input (White)
AUX right input (Red)
AUX IN
SUB WOOFER
Sub Woofer left output (White)
Sub Woofer right output (Red)
Front left output (White)
Front right output (Red)
FRONT
REAR
Rear left output (White)
Rear right output (Red)
To Kenwood disc changer/
External optional accessory
To connect these leads, refer to the relevant instruction manuals.
FM/AM antenna input
Fuse (10A)
If no connections are made, do not let the wire come out from the tab.
Wiring harness
(Accessory①)
When using the optional power amplifier, connect to its power control terminal.
Depending on what antenna you are using, connect either to the control terminal of the motor antenna, or to the power terminal for the booster amplifier of the film-type antenna.
Connect to the terminal that is grounded when either the telephone rings or during conversation.
To connect the Kenwood navigation system, consult your navigation manual.
To "EXT.AMP.CONT." terminal of the amplifier having the external amp control function.
To car light control switch
P.CONT
Power control wire (Blue/White)
ANT. CONT
Motor antenna control wire (Blue)
MUTE
TEL mute wire (Brown)
EXT. CONT
External amplifier control wire (Pink/Black)
ILLUMI
Dimmer control wire (Orange / White)
To front left speaker
White/Black
White
To front right speaker
Gray/Black
Gray
To rear left speaker
Green/Black
Green
To rear right speaker
Purple/Black
Purple
FRONT L
FRONT R
REAR L
REAR R
Ignition key switch
Car fuse box
ACC
Ignition wire (Red)
Car fuse box
(Main fuse)
Battery wire (Yellow)
Battery
Ground wire (Black) ⊖ (To car chassis)

non-Japanese cars

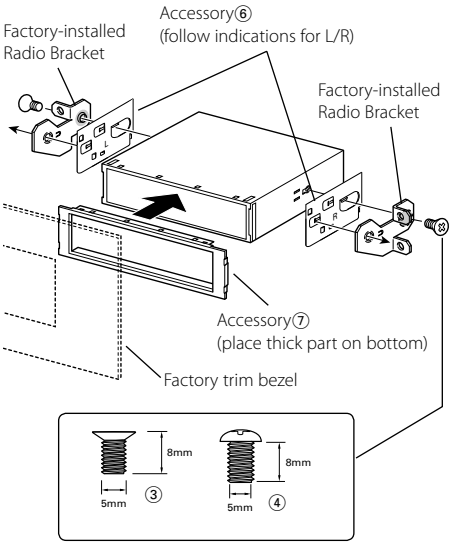

Metal mounting strap
(commercially available)
Firewall or metal support
Bend the tabs of the mounting sleeve with a screwdriver or similar utensil and attach it in place.
Self-tapping screw
(commercially available)
Screw (M4X8)
(commercially available)

- Make sure that the unit is installed securely in place. If the unit is unstable, it may malfunction (for example, the sound may skip).



- To attach this unit, make sure the front of the control panel faces you and fit it into the mounting sleeve by pressing the four corners of the hard rubber frame at the same time.
  Do not apply strong pressure to other sections than the corners; otherwise troubles such as the impossibility of opening or closing the panel may result.

Japanese cars



Accessory③...for Nissan car
Accessory④...for Toyota car

- Damage to the unit will result from using screws other than those provided.

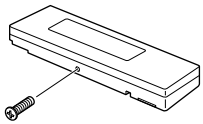
- A pair of J-Car Brackets (Accessory ⑥) are not used when fitting in a Toyota car.

Screwing the Faceplate on the Unit

If you want to fasten the faceplate to the main unit so that it does not fall off, screw in the provided screws in the holes shown below.

1 Refer to the function <Theft Deterrent Faceplate> (page 20) and remove the faceplate.

2 Insert the provided screw into the hole at the center of the bottom side of the faceplate which you have removed from the unit.



Accessory⑤

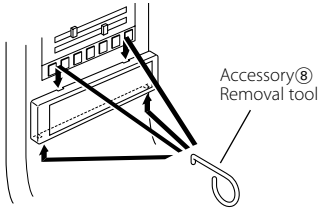
3 Refer to the section <Theft Deterrent Faceplate> (page 20) and then reattaching the faceplate.

⚠

- Never insert the screw in any other screw hole than the one specified. If you screw them in another hole, it will contact and may cause damage to the mechanical parts inside the unit.

Removing the hard rubber frame

Insert the removal tool into the indentations in the hard rubber frame, and pull it gently until the lock is released.

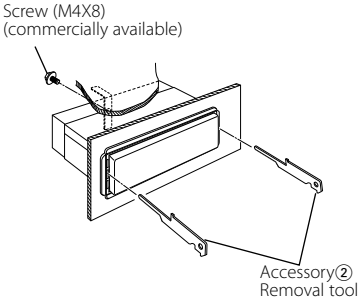


Removing the Unit

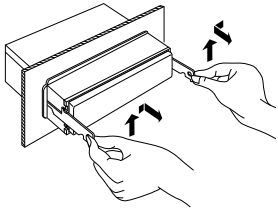
1 Refer to the section <Removing the hard rubber frame> (page 43) and then remove the hard rubber frame.

2 Remove the screw (M4 × 8) on the back panel.

3 Insert the two removal tools deeply into the slots on each side, as shown.



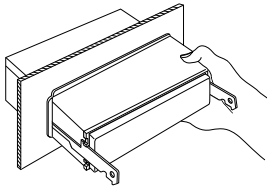
4 Push upward the removal tool toward the top, and pull out the unit halfway while pressing towards the inside.



⚠

- Be careful to avoid injury from the catch pins on the removal tool.

5 Pull the unit all the way out with your hands, being careful not to drop it.



What might seem to be a malfunction in your unit may just be the result of slight misoperation or miswiring. Before calling service, first check the following table for possible problems.

General

? The power does not turn ON.
- ✔ The fuse has blown.
  - ☞ After checking for short circuits in the wires, replace the fuse with one with the same rating.

? There's a source you can't switch.
- ✔ There's no media inserted.
  - ☞ Set the media you want to listen to. If there's no media in this unit, you can't switch to each source.
- ✔ The Disc changer isn't connected.
  - ☞ Connect the Disc changer. If the Disc changer isn't connected to it's input terminal, You can't switch to an external disc source.

? The memory is erased when the ignition is turned OFF.
- ✔ The ignition and battery wire are incorrectly connected.
  - ☞ Connect the wire correctly, referring to the section on <Connecting Wires to Terminals>.

? There's no loudness effect.
- ✔ You're using Subwoofer preout.
  - ☞ Loudness has no effect in Subwoofer preout.

? The TEL mute function does not work.
- ✔ The TEL mute wire is not connected properly.
  - ☞ Connect the wire correctly, referring to the section on <Connecting Wires to Terminals>.

? The TEL mute function turns ON even though the TEL mute wire is not connected.
- ✔ The TEL mute wire is touching a metal part of the car.
  - ☞ Pull the TEL mute wire away from the metal part of the car.

? Even if Loudness is turned ON, high-pitched tone isn't compensated for.
- ✔ Tuner source is selected.
  - ☞ High-pitched tone isn't compensated for when in Tuner source.

? No sound can be heard, or the volume is low.
- ✔ The fader or balance settings are set all the way to one side.
  - ☞ Center the fader and balance settings.
- ✔ The input/output wires or wiring harness are connected incorrectly.
  - ☞ Reconnect the input/output wires or the wiring harness correctly. See the section on <Connecting Wires to Terminals>.
- ✔ The values of Volume offset are low.
  - ☞ Turn up the Volume offset, referring to the section on <Audio Control> (page 11).
- ✔ The <Built-in Amp Setting> (page 31) is OFF.
  - ☞ Turn it ON.

? The sound quality is poor or distorted.
- ✔ One of the speaker wires is being pinched by a screw in the car.
  - ☞ Check the speaker wiring.
- ✔ The speakers are not wired correctly.
  - ☞ Reconnect the speaker wires so that each output terminal is connected to a different speaker.

? The Touch Sensor Tone doesn't sound.
- ✔ The preout jack is being used.
  - ☞ The Touch Sensor Tone can't be output from the preout jack.

? The Dimmer function doesn't work.
- ✔ The Dimmer wire isn't connected correctly.
  - ☞ Check the Dimmer wire connection.
- ✔ The <Dimmer> (page 31) is OFF.
  - ☞ Turn it ON.

? The panel is not hidden even when the power is turned off.
- ✔ The protection function for preventing fingers or other things from getting caught in between the panel and this unit has been activated.
  - ☞ Turn off the power again.

? The sound is not output from Subwoofer or it outputs the different sound.
- ✔ When "2Zone" of <Audio Setup> (page12) is set to ON.
  - ☞ Turn OFF "2Zone" of <Audio Setup>.

Tuner source

? Radio reception is poor.

✔ The car antenna is not extended.
☞ Pull the antenna out all the way.

✔ The antenna control wire is not connected.
☞ Connect the wire correctly, referring to the section on <Connecting Wires to Terminals>.

? The desired frequency can't be entered with the Direct Access Tuning.

✔ A station that can't be received is being entered.
☞ Enter a station that can be received.

✔ You're trying to enter a frequency with a 0.01 MHz unit.
☞ What can be designated in the FM band is to 0.1 MHz.

Disc source

? "AUX EXT" is displayed without achieving External disc control mode.

✔ Unsupported disc changer is connected.
☞ Use the disc changer mentioned in the <About CD players/disc changers connected to this unit> (page 4) of the section on <Safety precautions>.

? The specified disc does not play, but another one plays instead.

✔ The specified CD is quite dirty.
☞ Clean the CD.

✔ The disc is loaded in a different slot from that specified.
☞ Eject the disc magazine and check the number for the specified disc.

✔ The disc is severely scratched.
☞ Try another disc instead.

? A CD ejects as soon as it is loaded.

✔ The CD is quite dirty.
☞ Clean the CD, referring to the CD cleaning of the section on <About CDs> (page 7).

? Can't remove disc.

✔ The cause is that more than 10 minutes has elapsed since the vehicle ACC switch was turned OFF.
☞ The disc can only be removed within 10 minutes of the ACC switch being turned OFF. If more than 10 minutes has elapsed, turn the ACC switch ON again and press the Eject button.

? The disc won't insert.

✔ There's already another disc inserted.
☞ Press the [⏏] button and remove the disc.

? Direct Search can't be done.

✔ Another function is ON.
☞ Turn Random Play or other functions OFF.

? Track Search can't be done.

✔ For the discs first or last song.
☞ For each disc, Track Search cannot be done in the backward direction for the first song or in the forward direction for the last song.

Audio file source

? Cannot play an Audio file.

✔ The media is scratched or dirty.
☞ Clean the media, referring to the CD cleaning of the section on <About CDs> (page 7).

? The sound skips when an Audio file is being played.

✔ The media is scratched or dirty.
☞ Clean the media, referring to the CD cleaning of the section on <About CDs> (page 7).

✔ The recording condition is bad.
☞ Record the media again or use another media.

? The Audio file track time isn't displayed correctly.

✔ ---
☞ There are times when it isn't displayed correctly according to the Audio file recording conditions.

HD Radio source

? No sound can be heard, or the volume is low.

✔ The preset broadcast station is not transmitting in the mode that was set with <Receive mode Setting> (page 32).
☞ Please set <Receive mode Setting> to "Auto".

✔ In digital AM broadcasting, receive mode switches between stereo and monaural too often.
☞ Receiving condition is bad or unstable. Stereo is chosen when receiving condition is good, and it switches to monaural when the condition becomes bad.

✔ HD Radio tuner is connected to KCA-S210A or other units.
☞ Connect the HD Radio tuner directly to the control unit.

The messages shown below display your systems condition.

Eject: No disc magazine has been loaded in the changer. The disc magazine is not completely loaded.
➪ Load the disc magazine properly.
No CD in the unit.
➪ Insert the CD.

No Disc: No disc has been loaded in the disc magazine.
➪ Load a disc into the disc magazine.

TOC Error: No disc has been loaded in the disc magazine.
➪ Load a disc into the disc magazine.
The CD is quite dirty. The CD is upside-down. The CD is scratched a lot.
➪ Clean the CD and load it correctly.

E-05: The CD is upside-down.
➪ Load the CD correctly.

Blank Disc: Nothing has been recorded on the MD.

No Track Disc: No tracks are recorded on the MD, although it has a title.

E-15: Media was played that doesn't have data recorded that the unit can play.
➪ Use media that has data recorded that the unit can play.

No Music Data: Media was played that doesn't have data recorded that the unit can play.
➪ Use media that has data recorded that the unit can play.
Files for picture downloading only are recorded in CD-R/CD-RW.

No Panel: The faceplate of the slave unit being connected to this unit has been removed.
➪ Replace it.

E-77: The unit is malfunctioning for some reason.
➪ Press the reset button on the unit. If the "E-77" code does not disappear, consult your nearest service center.

Mecha Error: Something is wrong with the disc magazine. Or the unit is malfunctioning for some reason.
➪ Check the disc magazine. And then press the reset button on the unit. If the "Mecha Error" code does not disappear, consult your nearest service center.

Hold Error: The protective circuit in the unit activates when the temperature inside the automatic disc changer exceeds 60°C (140°F), stopping all operation.
➪ Cool down the unit by opening the windows or turning on the air conditioner. As the temperature falls below 60°C (140°F), the disc will start playing again.

No Name: Attempted to display DNPS during the CD play having no disc names preset.

Load: Discs are being exchanged in the Disc changer.

READING: The unit is reading the data on the disc.

IN (Blink): The CD player section is not operating properly.
➪ Reinsert the CD. If the CD cannot be ejected or the display continues to flash even when the CD has been properly reinserted, please switch off the power and consult your nearest service center.

Unsupported File:
An Audio file is played with a format that this unit can't support.
➪ ----

Copy Protection:
A copy-protected file is played.
➪ ----

DEMO: The Demonstration mode has been selected.
➪ The <Demonstration mode Setting> (page 35) is ON. Turn it OFF.

PROTECT: The speaker wire has a short-circuit or touches the chassis of the vehicle, and then the protection function is activated.
➪ Wire or insulate the speaker cable properly and press the reset button.

Specifications

Specifications subject to change without notice.

FM tuner section

Frequency range (200 kHz space)
: 87.9 MHz – 107.9 MHz
Usable sensitivity (S/N = 30dB)
: 9.3dBf (0.8 µV/75 Ω)
Quieting Sensitivity (S/N = 50dB)
: 15.2dBf (1.6 µV/75 Ω)
Frequency response (±3.0 dB)
: 30 Hz – 15 kHz
Signal to Noise ratio (MONO)
: 70 dB
Selectivity (±400 kHz)
: ≥ 80 dB
Stereo separation (1 kHz)
: 40 dB

AM tuner section

Frequency range (10 kHz space)
: 530 kHz – 1700 kHz
Usable sensitivity (S/N = 20dB)
: 28 dBµ (25 µV)

CD player section

Laser diode
: GaAlAs
Digital filter (D/A)
: 8 Times Over Sampling
D/A Converter
: 1 Bit
Spindle speed (Audio file)
: 1000 – 400 rpm (CLV 2times)
Wow & Flutter
: Below Measurable Limit
Frequency response (±1 dB)
: 10 Hz – 20 kHz
Total harmonic distortion (1 kHz)
: 0.008 %
Signal to Noise ratio (1 kHz)
: 110 dB
Dynamic range
: 93 dB
Channel separation
: 96 dB
MP3 decode
: Compliant with MPEG-1/2 Audio Layer-3
WMA decode
: Compliant with Windows Media Audio
AAC decode
: AAC-LC ".m4a" files

Audio section

Maximum output power
: 50 W x 4
Full Bandwidth Power (at less than 1% THD)
: 22 W x 4
Tone action
Bass : 100 Hz ±8 dB
Middle : 1 kHz ±8 dB
Treble : 10 kHz ±8 dB
Preout level / Load (during disc play)
: 5000 mV/10 kΩ
Preout impedance
: ≤ 80 Ω

Auxiliary input

Frequency response (±1 dB)
: 20 Hz – 20 kHz
Input Maximum Voltage
: 1200 mV
Input Impedance
: 100 kΩ

General

Operating voltage (11 – 16V allowable)
: 14.4 V
Current consumption
: 10 A
Installation Size (W x H x D)
: 182 x 53 x 162 mm
7-3/16 x 2-1/16 x 6-1/10 inch
Weight
3.09 lbs (1.40 kg)

KENWOOD